

Relever les défis du cancer du sein au
Rwanda:
Appliquer les leçons mondial

Meeting the Challenges of Breast Cancer
in Rwanda:
Applying Global Lessons

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Félicitations/
Felicidades/
Congratulations

et

Merci/
Muchas gracias/
thank you

to the Rwanda Task Force on Expanded
Access to Cancer Care and Control

From evidence ...

... to anecdote

July, 2007



2007/06/16

January, 2008














From anecdote ...

... to evidence



OUTLINE:

1. Evidence to anecdote to evidence
- 2. Cancer in LMICs: so much more can be done**
3. Breast cancer: global health priority
4. Applying the diagonal approach to women's cancer

Challenge and disprove the myths about cancer/NCD

M1. Unnecessary:

Not a health priority in LMICs/not a problem of the poor

M2. Impossible:

Nothing we can do about it

M3. Unaffordable:for the poor

M4: Inappropriate: either/or

Challenging cancer implies taking resources away from other diseases of the poor

The cancer divide

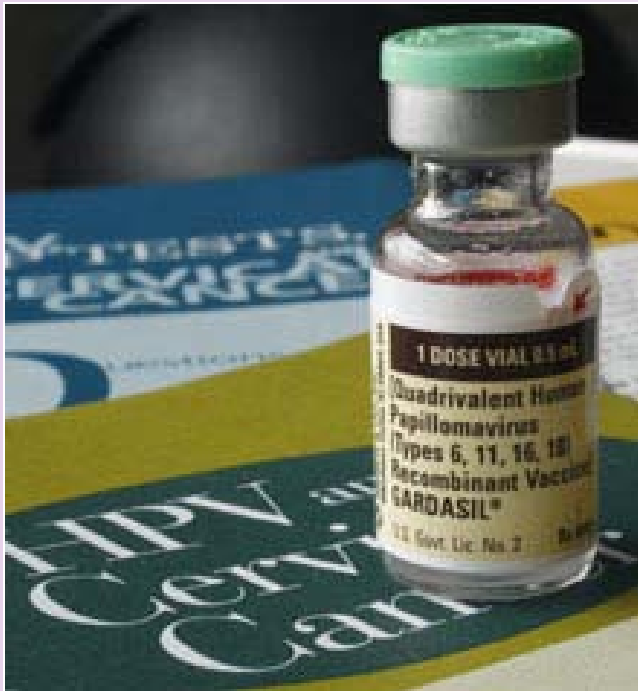
Cancer is a disease of rich and poor

Yet, transition is polarizing the burden so that it is increasingly the poor who suffer:

- **Incidence and death: preventable cancers**
 - **Death: treatable cancer**
- **Avoidable pain and suffering – particularly at end of life**
- **Financial impoverishment from the costs of care and effects of the disease**

Concentration of mortality: example Cervical cancer

275,000 deaths worldwide; 93% in LMICs



HPV Vaccine



Children orphaned by cervical cancer

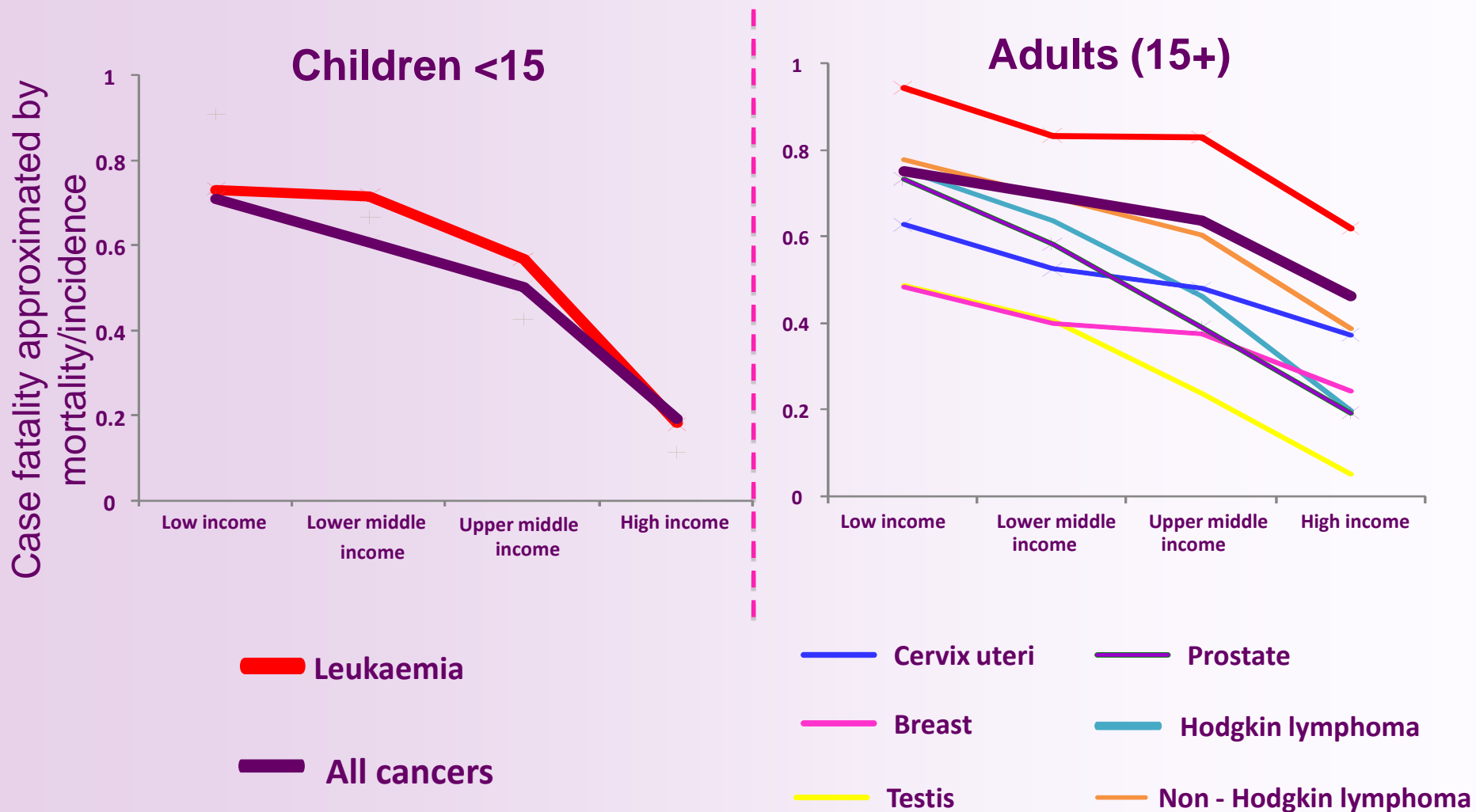
Distribution of childhood cancer globally by level of income (< 15)

Level of Income	Incidence	Mortality	Population
Low	21%	27%	20%
Low middle	50%	55%	57%
Upper middle	15%	15%	13%
High	15%	5%	10%

LMICS: More than 85% of pediatric cancer cases and 95% of deaths.

For children & adolescents 5-14 cancer is
#2 cause of death in wealthy countries
#3 in upper middle-income
#4 in lower middle-income
and # 8 in low-income countries

Lethality by cancer type and country income



Source: Knaul, Arreola, Mendez. estimates based on IARC, Globocan, 2010.

5/80 cancer disequilibrium (Frenk/Lancet 2010)

- Almost 80% of the DALYs (disability-adjusted life-years) lost worldwide to cancer are in LMICs, yet these countries have only a very small share of global resources for cancer ~ 5% or less.
- Worse in certain regions:
 - Africa: only 0.2% of global cancer medical costs, 1% of global spending on health, 6.4% of new cancer cases, and 15% of the global population

Initial views on MDR-TB treatment, c. 1996-97

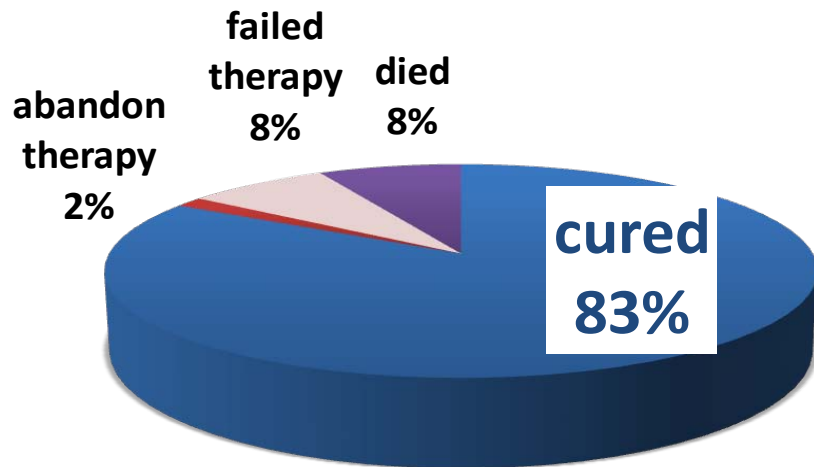
“In developing countries, **people with multidrug-resistant tuberculosis usually die**, because effective treatment is often impossible in poor countries.”
WHO 1996

“**MDR-TB is too expensive to treat in poor countries**; it detracts attention and resources from treating drug-susceptible disease.”
WHO 1997

Source: Paul Farmer., 2009



Outcomes in MDR-TB patients in Lima, Peru receiving at least four months of therapy



All patients initiated therapy between Aug 96 and Feb 99

Mitnick et al, Community-based therapy for multidrug-resistant tuberculosis in Lima, Peru. NEJM 2003; 348(2): 119-28.

Making common cause with WHO: Reduced prices of second-line TB drugs

Drug	% Decline in price 1997-9
Amikacin	90%
Ethionamide	84%
Capreomycin	97%
Ofloxacin	98%

Source: Paul Farmer, 2009

0 oncologists

Rural Rwanda, Burkitt's lymphoma



Regimen of vincristine, cyclophosphamide, intrathecal methotrexate



Central Haiti




Status post-CHOP in Central Haiti: Still in remission three years later



People are at risk for many reasons...victims of success?

	Maternal mortality	Breast and cervical cancer
Africa	APPROX: 210,000	67,885 75,893 =133,778
LMICs	APPROX: 360,000	772,728 478,640 =1,251,368



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The epidemic of breast cancer: Unforeseen challenge in LDCs

“Some 45% of the more than 1 million new cases of breast cancer diagnosed each year, and more than 55% of breast-cancer-related deaths, occur in low- and middle-income countries.*

Such countries now face the challenge of effectively detecting and treating a disease that previously was considered too uncommon to merit the allocation of precious health care dollars.”

Source: Porter, P. (2007). "Westernizing" Women's Risks? Breast Cancer in Lower-Income Countries." *New England Journal of Medicine* 358(3):4

- Curado MP, Edwards B, Shin HR, et al., eds. *Cancer incidence in five continents*. France: International Agency for Research on Cancer, 2007.

Mythversusreality: breast cancer in LMICs

✗ a disease of developed countries and wealthy women.



✓ More than half of cases and almost 2/3 of deaths occur in the developing world.

✗ a disease of older women



✓ large proportion of cases and 60% of deaths in women < 54.

✗ less of a health priority than cervical cancer.



✓ More deaths and DALYs lost to breast cancer, in all developing regions other than SEAsia and SSAfrica.



In developing regions, breast cancer...

- Most frequent cause of cancer-related death in developing and developed regions
- 2-3rd leading cause
- 268,000 of the 458,000 deaths per year are in LMICs: 58%
- Most common cancer in developed and developing regions
- 4.4 million women alive (diagnosed): how many in developing regions?
- 2008: 1.38 million new cases; 50% of which are from LMICs
- 10.9% of all incident cancers – second to lung

(Globocan, 2010; Boyle y Levin, 2008; Beaulieu, Bloom, y Bloom, 2009).



Among women 15-59 Breast cancer is globally

#1 cause of death in wealthy countries

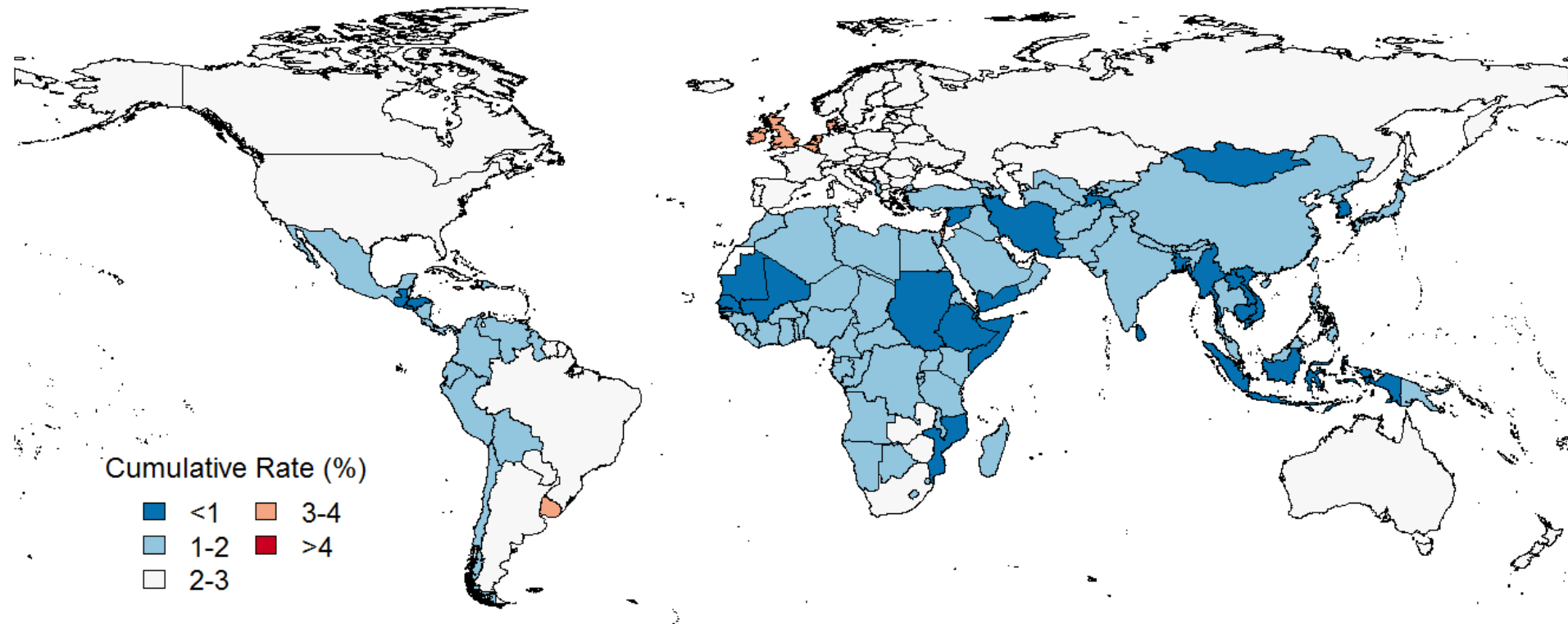
#2 in middle-income countries and
5 in low-income countries

(IARC, GLOBOCAN, 2008/10)



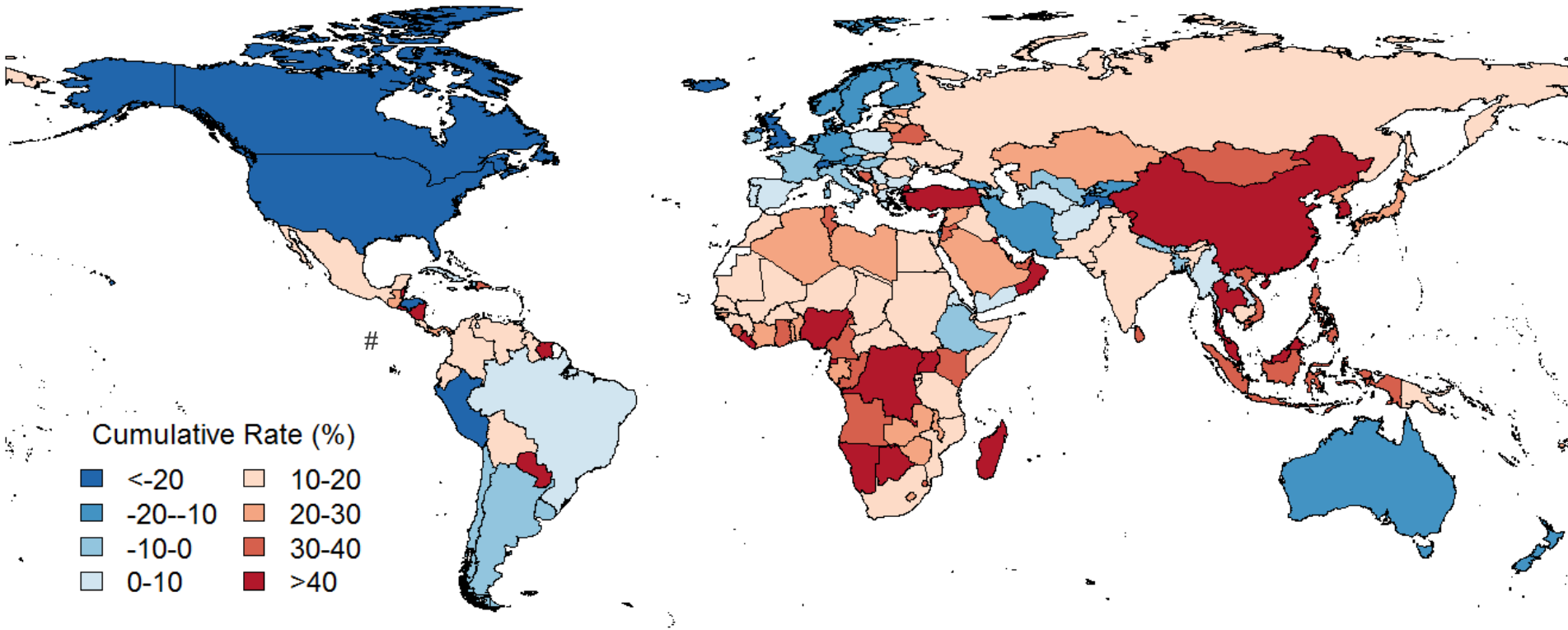
Cumulative mortality of breast cancer, (age 20-80), 2010

Cumulative Mortality of Breast Cancer, 2010 (%)



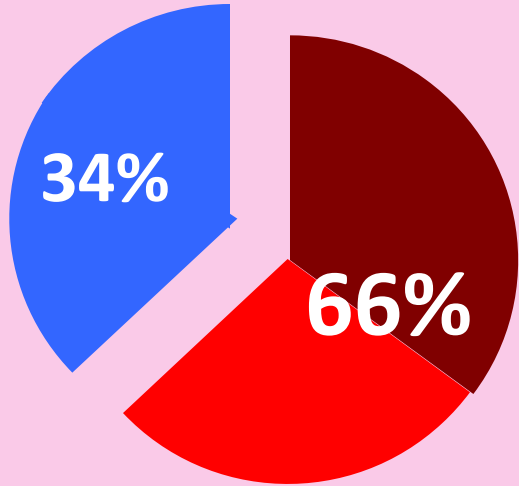
Change in cumulative mortality of breast cancer, 1990-2, (20-80)

Change in Cumulative Mortality of Breast Cancer from 1990 to 2010 (%)

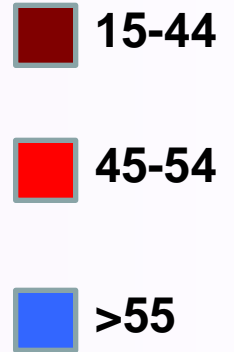
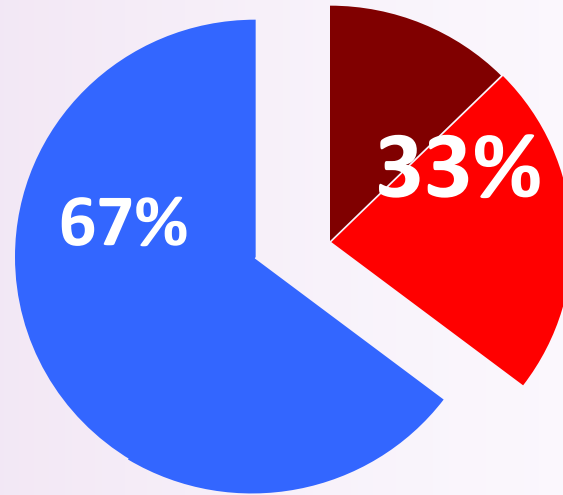


In LMICs, a much higher proportion of diagnosis and death is in women <55

Low income countries

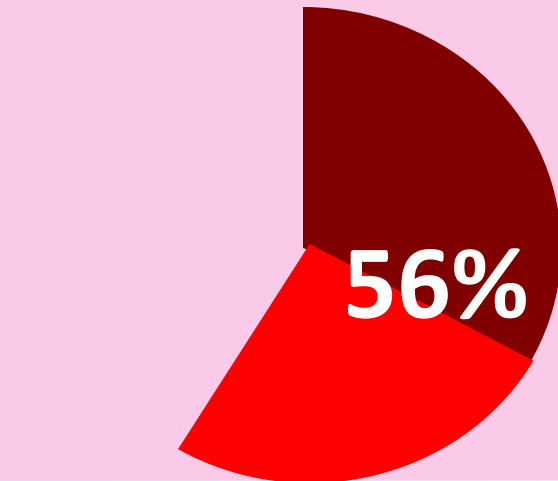


High-income countries

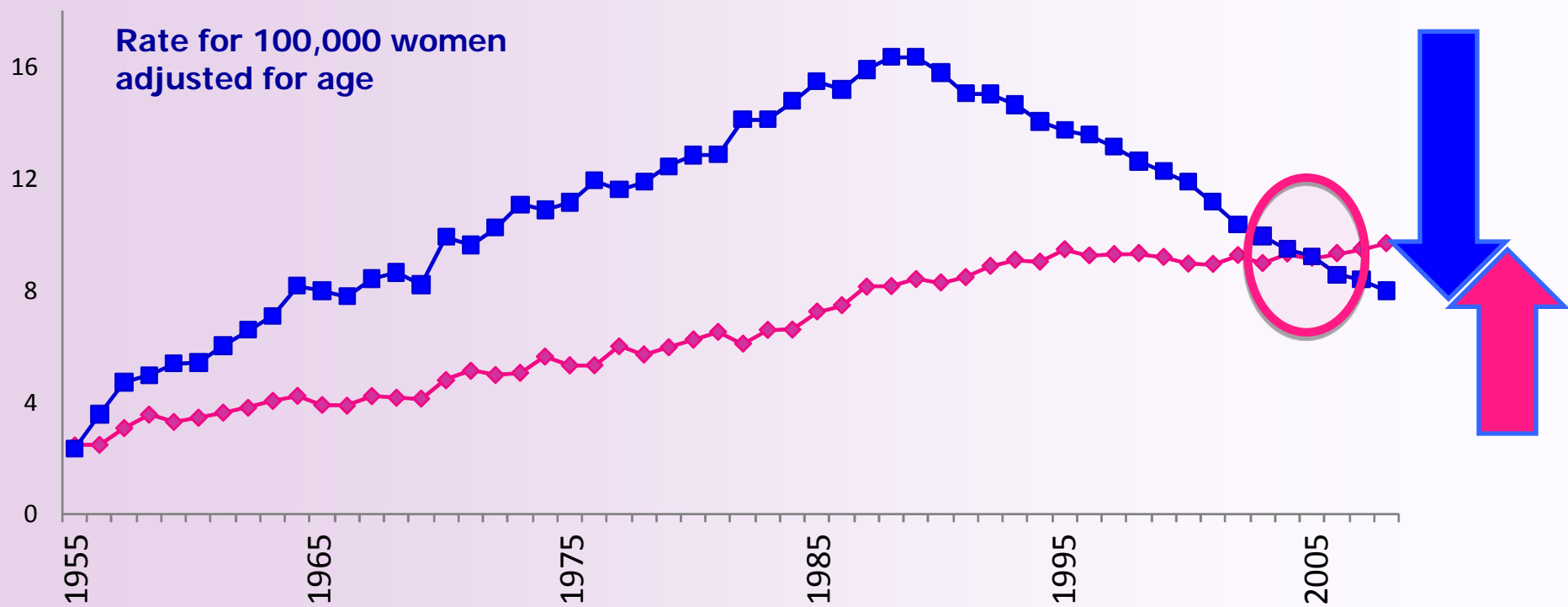


Age at diagnosis

Age at death



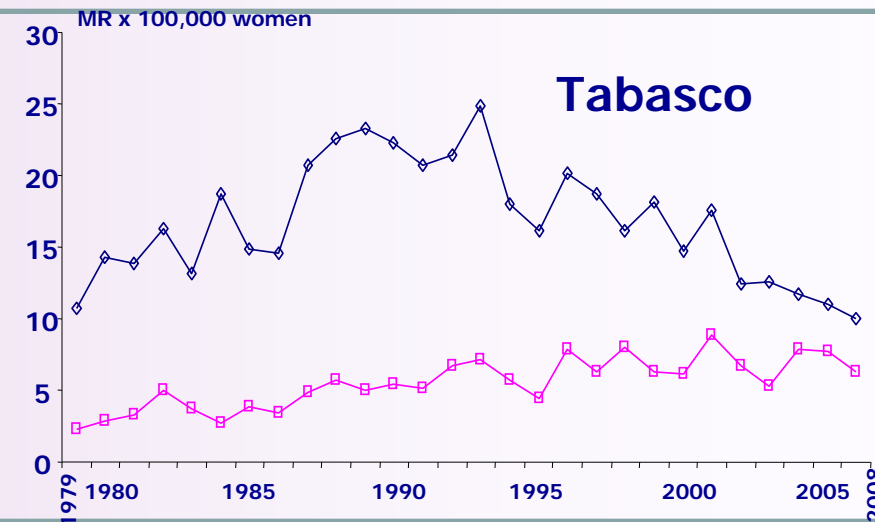
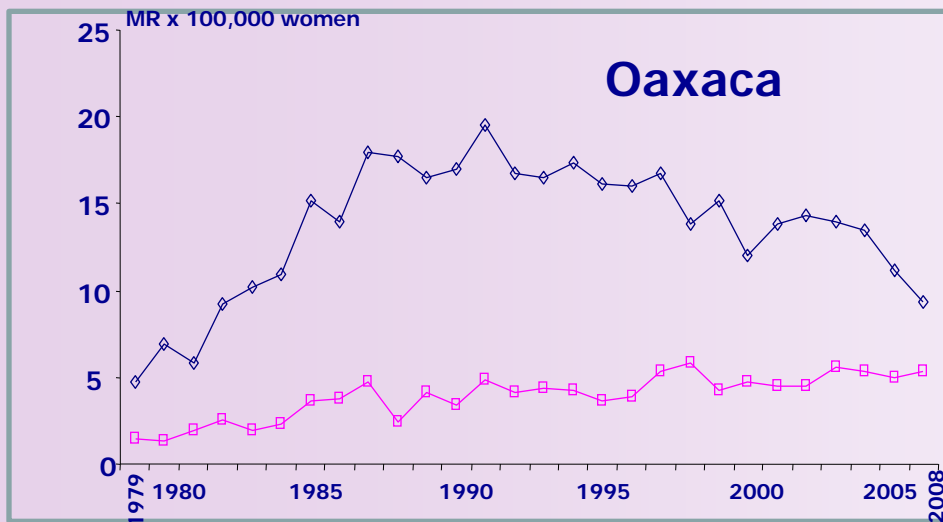
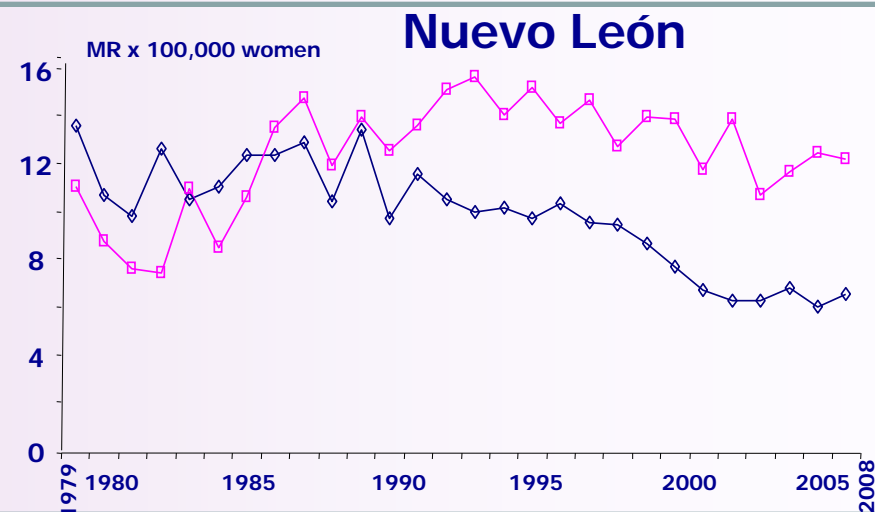
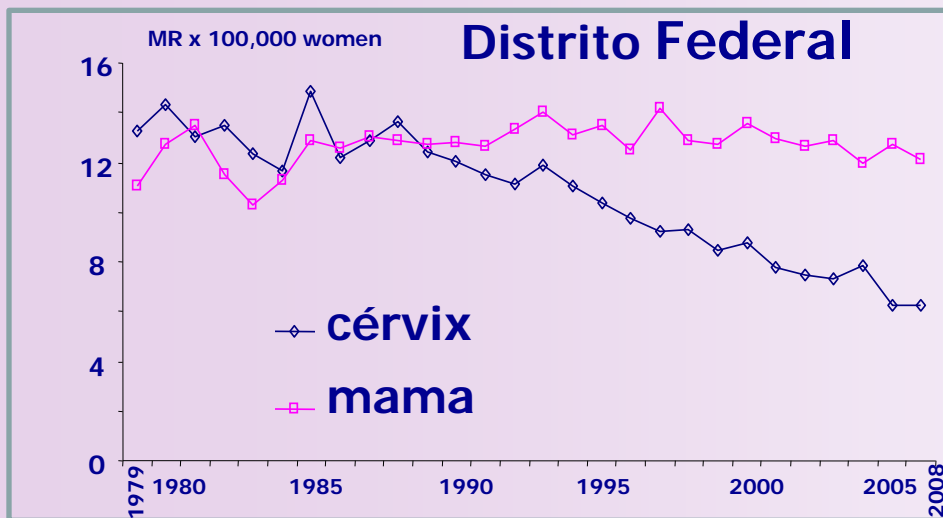
Mortality from breast and cervical cancer in Mexico 1955-2008



2006: BC > CC.
For the first time in 5 decades.

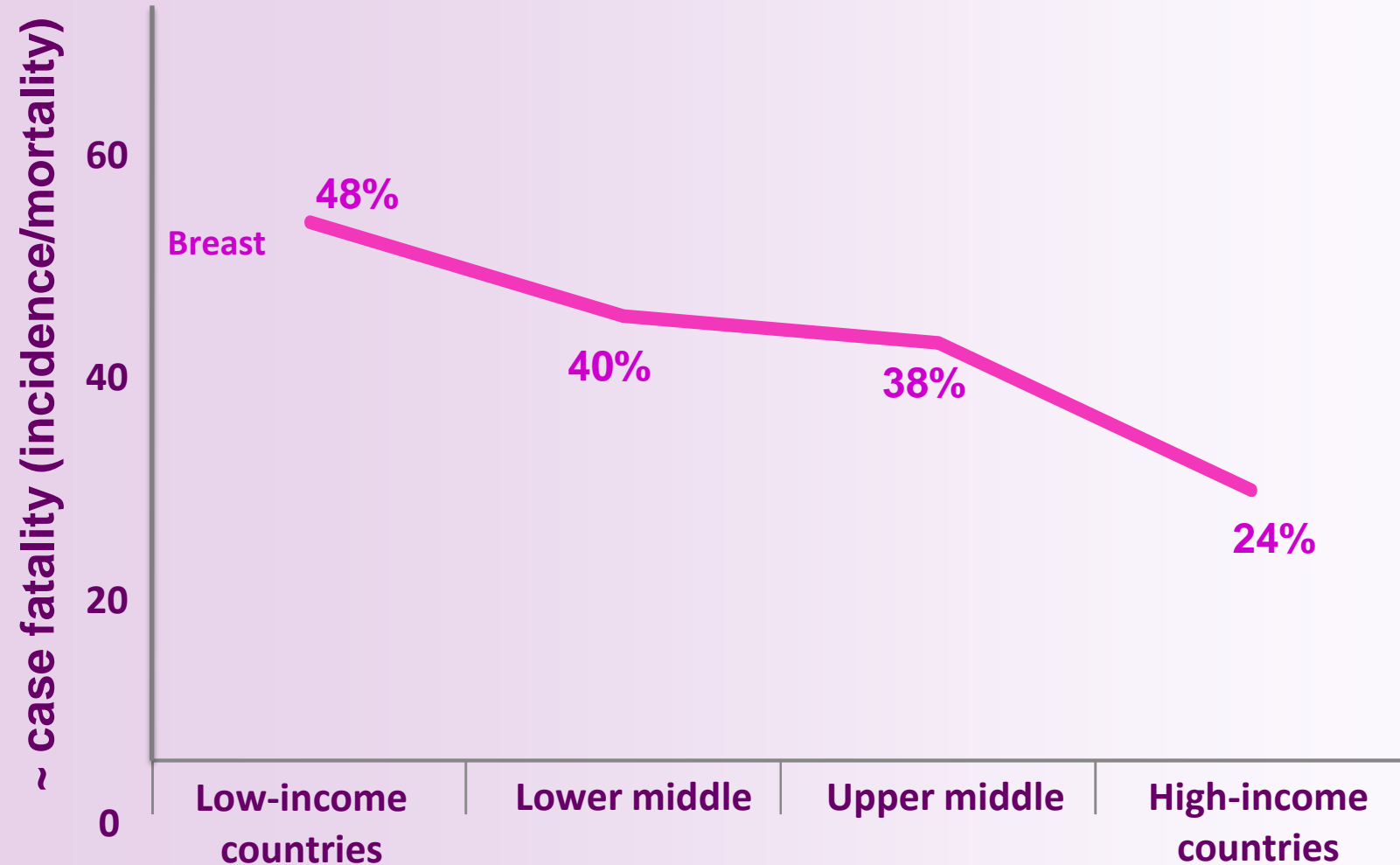
Source: Lozano, Knaul, Gómez-Dantés, Arreola-Ornelas y Méndez, 2008, Tendencias en la mortalidad por cáncer de mama en México, 1979-2007. FUNSALUD, Documento de trabajo. Observatorio de la Salud, con base en datos de la OMS y la Secretaría de Salud de México.

Cervical and breast cancer mortality by state in Mexico




Source: Lozano, Knaul, Gómez-Dantés, Arreola-Ornelas y Méndez, 2008, Tendencias en la mortalidad por cáncer de Mama en México, 1979-2008. FUNSALUD, Documento de trabajo. Observatorio de la Salud.

**The opportunity to survive should not be an accident of geography or defined by income.
Yet it is.
But there is scope for action.**



Source: Author estimates based on IARC, Globocan, 2008 and 2010.
Quote: HRH Princess Dina Mired



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Global Lesson: Integration

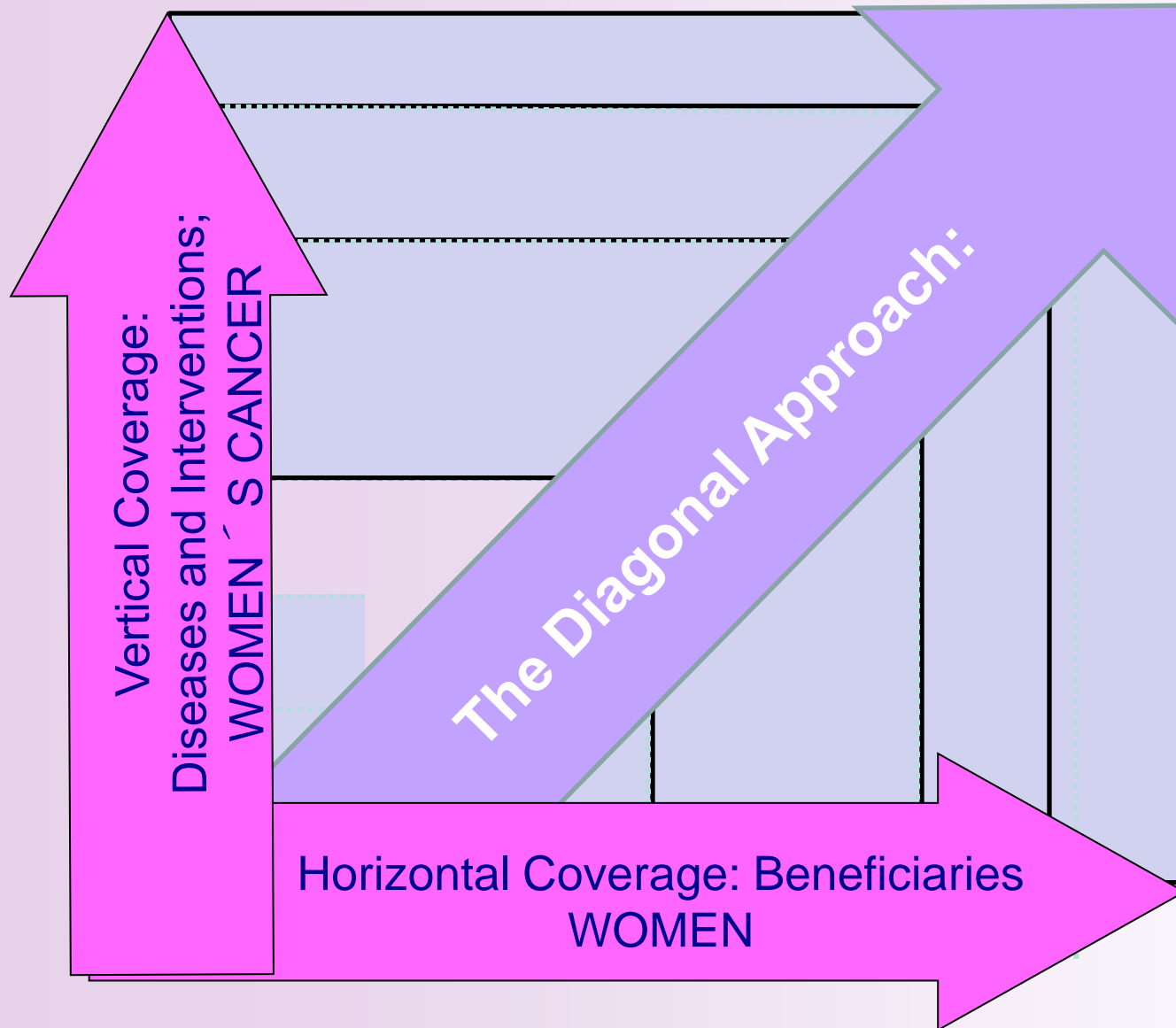
The diagonal approach to health system strengthening

“Vertical programs refer to targeted interventions, proactive and disease-specific on a massive scale (HIV, maternal and child health), while horizontal programs refer to more integrated health services corresponding to functions of the health systems, guided by demand and shared resources.

... it has been discussed at length what the most effective approach is to deliver health interventions: vertical programs or horizontal programs. This is a false dilemma, because both interventions need to coexist in what could be called a diagonal approach”

Sepúlveda *et al.*, Aumento de la sobrevida en menores de 5 años: la estrategia diagonal

A diagonal approach to women and health and cancer care and control



Diagonal approaches

Service Platforms

1. Integrating breast and cervical cancer screening into MCH, SRH
2. Integrating disease prevention and management into social welfare and anti-poverty programs

Health Systems Functions

3. Catalyzing and employing community health workers and expert patients
4. Financial protection/insurance strategies with horizontal and vertical coverage
5. Reducing non-price barriers to pain control
6. Developing effective health services research and monitoring

Mexico: innovations in financial protection, early detection and delivery of treatment for breast cancer

Problem 60-70% of cases are detected in stage III-IV





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